BrainQ RSC/2

BrainQ

USER MANUAL

BrainQ RSC/2 Thermostat

Series

8G.52.09.00/10.05

GB

English

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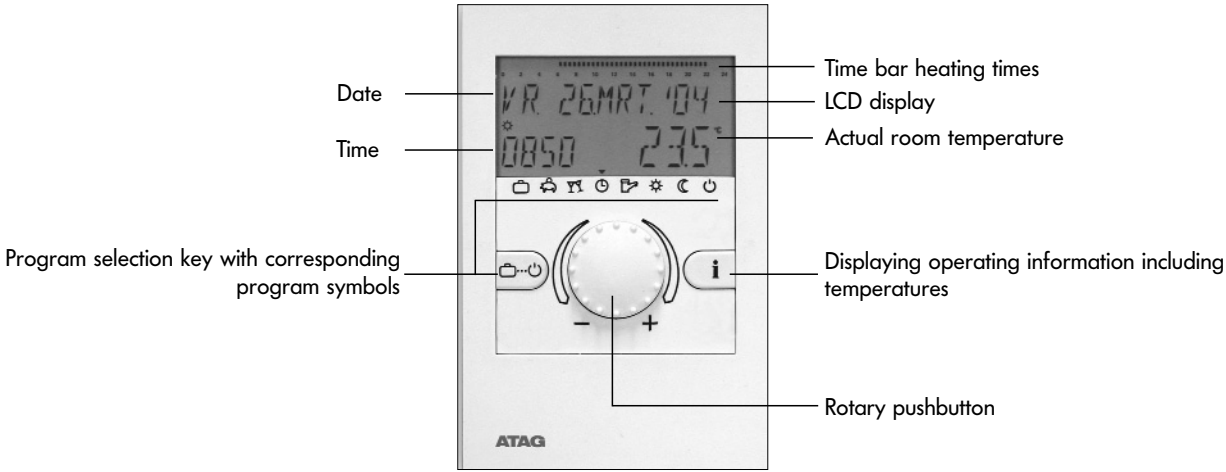
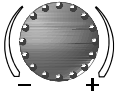
Display and operating instruments



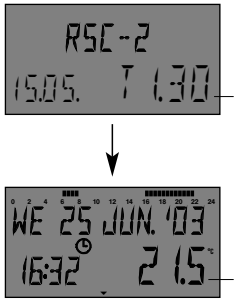
Operation

Symbolism used in this manual:



Turn: select, change

Press: confirm, store



Instrument information

Standard display

The centrally arranged rotary pushbutton and the keys labeled with symbols facilitate ease of operation. It is, however, recommended to read this manual attentively to be informed about the repeating steps.

- Each changeable value flashes in the display and can be changed by means of the rotary pushbutton. A flashing display is appropriately highlighted in this manual.
  Turn to the right (+) in clockwise direction: increasing values
  Turn to the left (–) in anti-clockwise direction: decreasing values
- Press briefly: Acceptance of the selected and indicated value, store.
- Hold depressed for approx. 3 seconds: Entry into the programming level (level selection)

If the value is not saved with the rotary pushbutton after an operation step, the value adjusted last is automatically accepted after approx. 60 seconds.

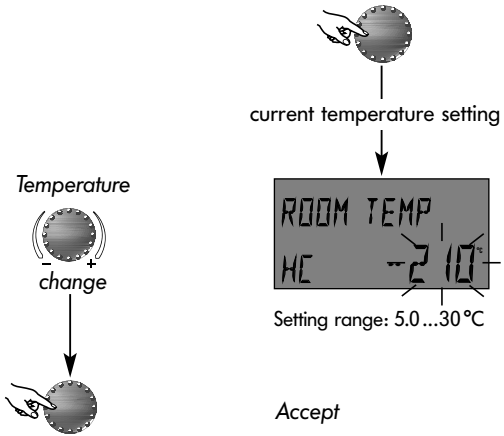
LCD display

The control is equipped with a large display, all information appears in plain text and several languages are available (see page 23).
During commissioning of the installation or after a power failure a segment test with automatic error diagnostic takes place, followed by the short-term indication of instrument type and software version.

Standard display

The subsequently appearing standard display shows day, date, time and room temperature. The time bar above the date specifies the heating times. * The display will be in dutch (NL) Refere to pages 12, 22 and 23 to alter display to english

Temporary change of room temperature



By short-term pressing of the rotary pushbutton in the standard display the required room temperature can be corrected as shown in the opposite schematic.

A room temperature correction can be made in the operating modes *AUTOMATIC*, *ABSENT* and *PARTY*. This change is only effective for the duration of the current time block (of the set timeprogram).

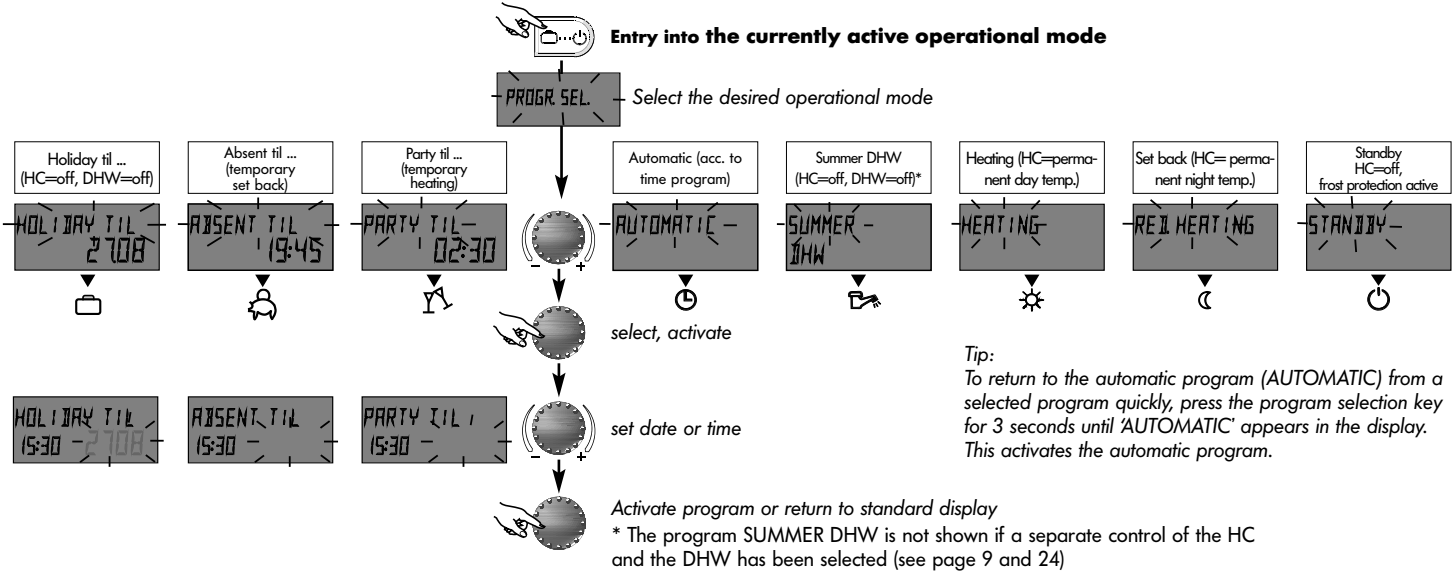
After expiration of the corresponding time block, the temperature is applied that was set in the next time block of the timeprogram.

Tip: If it turns out that a temporary change of the room temperature is often necessary, we recommend changing the standard temperatures in the time program.

Operational mode selection for heating and hot water

With this button the required operational mode for heating and hot water circuit is selected. It appears in the text on the display, simultanously an arrow at the lower edge of the display points to the appertaining program symbol.

Select: When pressing the operational mode selector button, the currently active mode is indicated by flashing. The other operational modes can be selected and activated according to the following schematic.



Tip:
To return to the automatic program (AUTOMATIC) from a selected program quickly, press the program selection key for 3 seconds until 'AUTOMATIC' appears in the display. This activates the automatic program.

* The program SUMMER DHW is not shown if a separate control of the HC and the DHW has been selected (see page 9 and 24)

Function of operational modes (with common adjustment, see page 24)

Holiday til ... (HC=off, DHW=off)

Setting range:

Curr. date … Curr. date + 250 days. Return to the previously selected operationalmode at 0.00 o'clock of the set returndate.
The domestic hot-water operation is switched off in a frost protected way.
Earlier return: Press button ⊶, adjust and accept the desired operational mode by pressing the rotary pushbutton.

Absent til ... (temporary set back)

Setting range:

P1: Interruption of heating and domestic hot water operation until the next activation period (s. page 19-20 timeprograms)
0.5 ...24h: Short-term interruption of the heating and domestic hot water operation up to the set time.
Earlier return:
Press button ⊶, adjust and accept the desired operational mode by pressing the rotary pushbutton.

Party til ... (temporary heating)

Setting range:

P1: Continuation of heating and domestic hot water operation until the next activation period (s. page 19-20 timeprograms).
0.5 ...24h: Short-term extension of heating and domestic hot water operation up to the set time.
Earlier termination:
Press button ⊶, adjust and accept the desired operational mode by pressing the rotary pushbutton.

Automatic (according to time program)

Timeprograms:

(s. pagee 19-20 timeprograms)

Automatic heating and domestic hot water operation acc. to specified temperatures and ◷ -Program.

Programming of individual timeprograms see page 14.

Summer DHW (HC=off, DHW=off)*

Timeprograms:

(s. pagee 19-20 timeprograms)

Only hot water-operation according to settings of hot water temperature. (See p. 6) and ◷ -program.

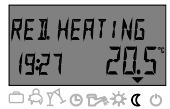
Heating operation is switched off and frost protected.

Programming of individual timeprograms see page 14.

Heating (HC=permanent day temp.)

Permanent heating and domestic hot water operation (24 hrs) according to the set daytemperature and domestic hot water temperature. (Also see page 28)

Red. heating (HC=permanent night temp.)

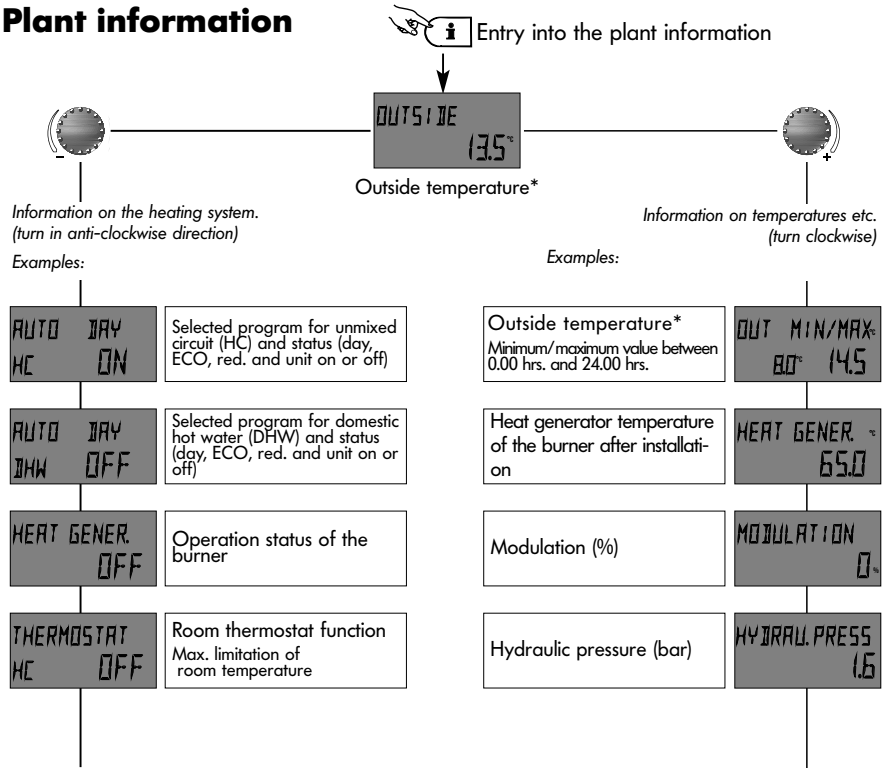


Permanent reduced heating and reduced hot water operation (24 hrs) according to the set night temperature, reduced operating mode and domestic hot water night temperature. (Also see pages 34, 29 and 27)

Standby HC=off, frost protection active

Frost protected shutdown of the entire heating-system (heating and domestic hot water switched off).

Plant information



i Information button for the enquiry of the heating system, temperatures etc. The query is made by turning the rotary pushbutton and depends on the direction.

Turn clockwise:

shows all plant related temperatures first

- *the actual values*
- *setvalues with rotary pushbutton depressed*

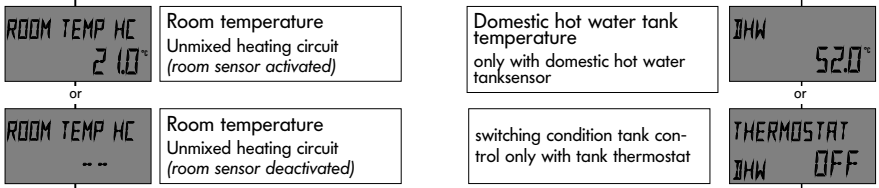
Turn anti-clockwise:

shows information on heating and domestic hot-water circuit first

- *operational mode (holiday, absent, party, auto etc.)*
- *Timer program P1 (P2 or P3 after clearance)*
- *operational mode (daytime mode, reduced mode, ECO mode)*
- *Identification (unmixed heating circuit HC, domestic hot water DHW)*
- *Status of pump (On, Off)*

shows the burner's

- *operational status (Off, On)*



* Outside temperature is only displayed when the outside sensor is connected.

indicates of heating circuit pump and boiler pump

– boiler status (Off, On)

indicates with room sensor activated

– *room thermostat function (heating Off, On)*
– *current room temperature*

indicates in dependence on type of sensor in hot water tank

– *Domestic hot water tank temperature (with tank sensor)*
– *switching condition (with tank thermostat)*

Application: *Permanent display of selected information (monitoring)*

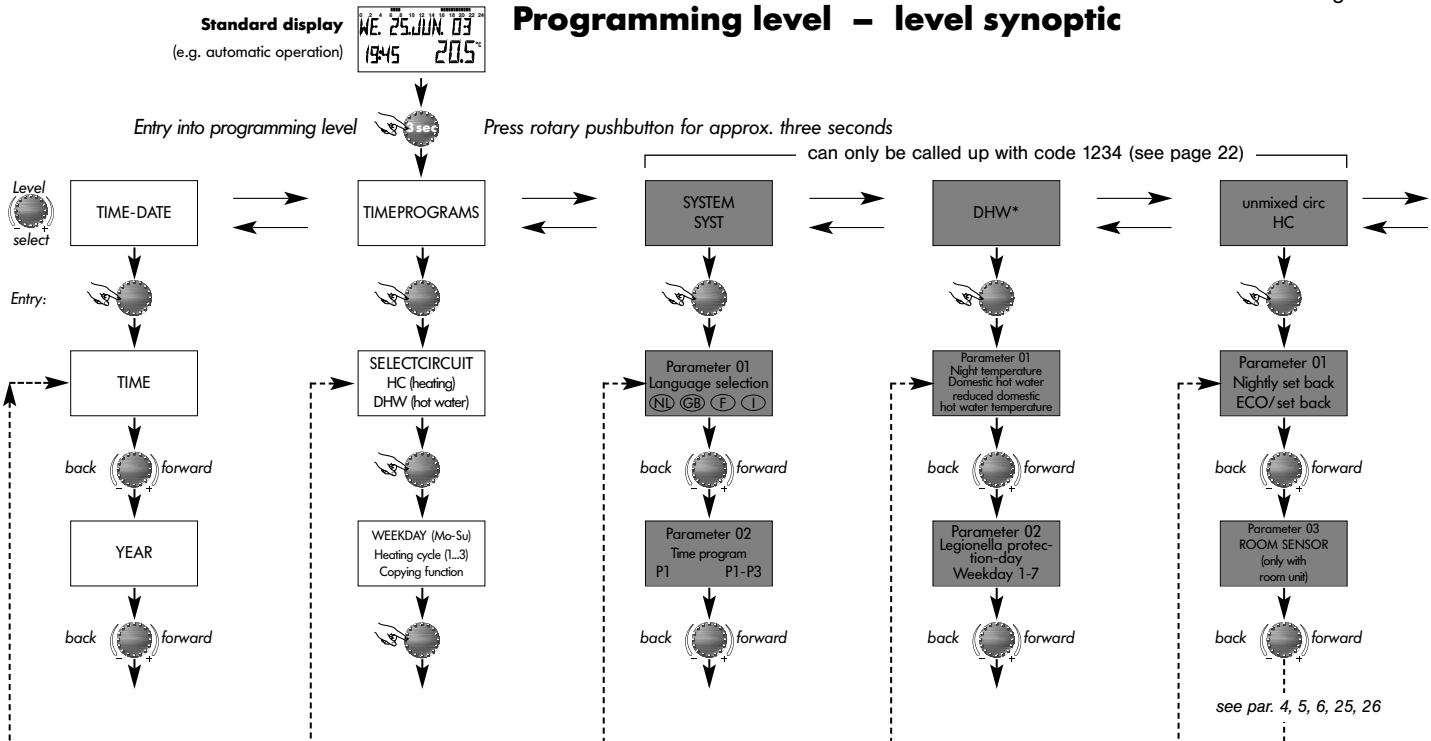
Info-time

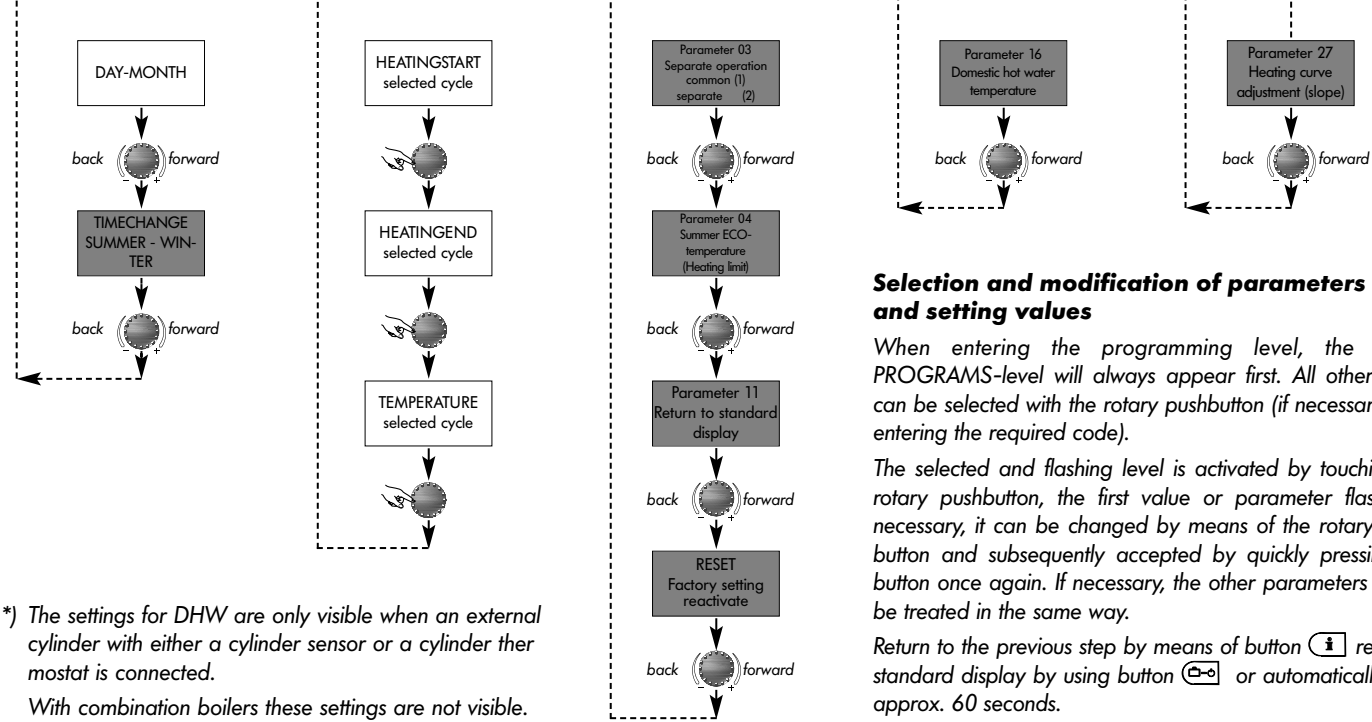
The standard display will appear after a set time if no key is pressed. It is possible to have the information shown permanently with a fastkey procedure or to adjust the display time (except for the general exit time SYSTEM - Parameter 11):

- press the i-key for 3 seconds
- INFO TIME (= duration of the information in the display) will appear
- Turn the rotary pushbutton to the desired value.
- Press the rotary pushbutton.
- The selected value is activated.

Setting range: OFF (permanent display of selected information)
0.5 to 10 minutes

Programming level – level synoptic





**) The settings for DHW are only visible when an external cylinder with either a cylinder sensor or a cylinder ther mostat is connected.*

With combination boilers these settings are not visible.

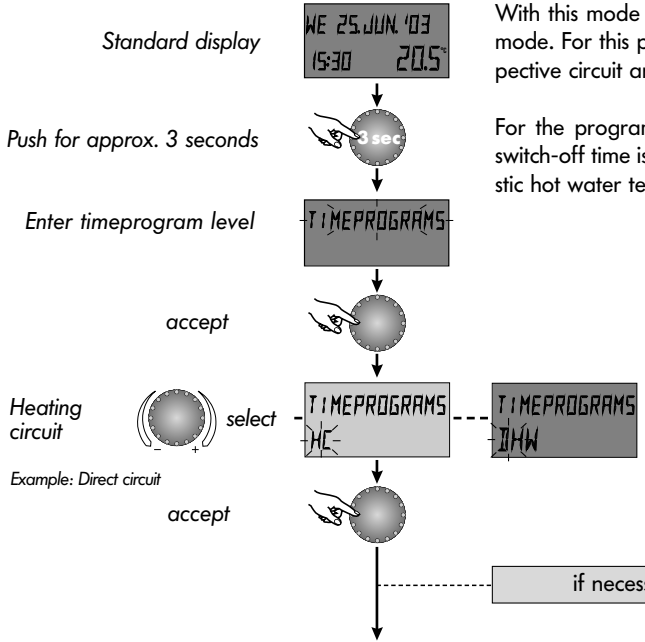
Selection and modification of parameters and setting values

When entering the programming level, the TIME-PROGRAMS-level will always appear first. All other levels can be selected with the rotary pushbutton (if necessary after entering the required code).

The selected and flashing level is activated by touching the rotary pushbutton, the first value or parameter flashes. If necessary, it can be changed by means of the rotary push-button and subsequently accepted by quickly pressing the button once again. If necessary, the other parameters should be treated in the same way.

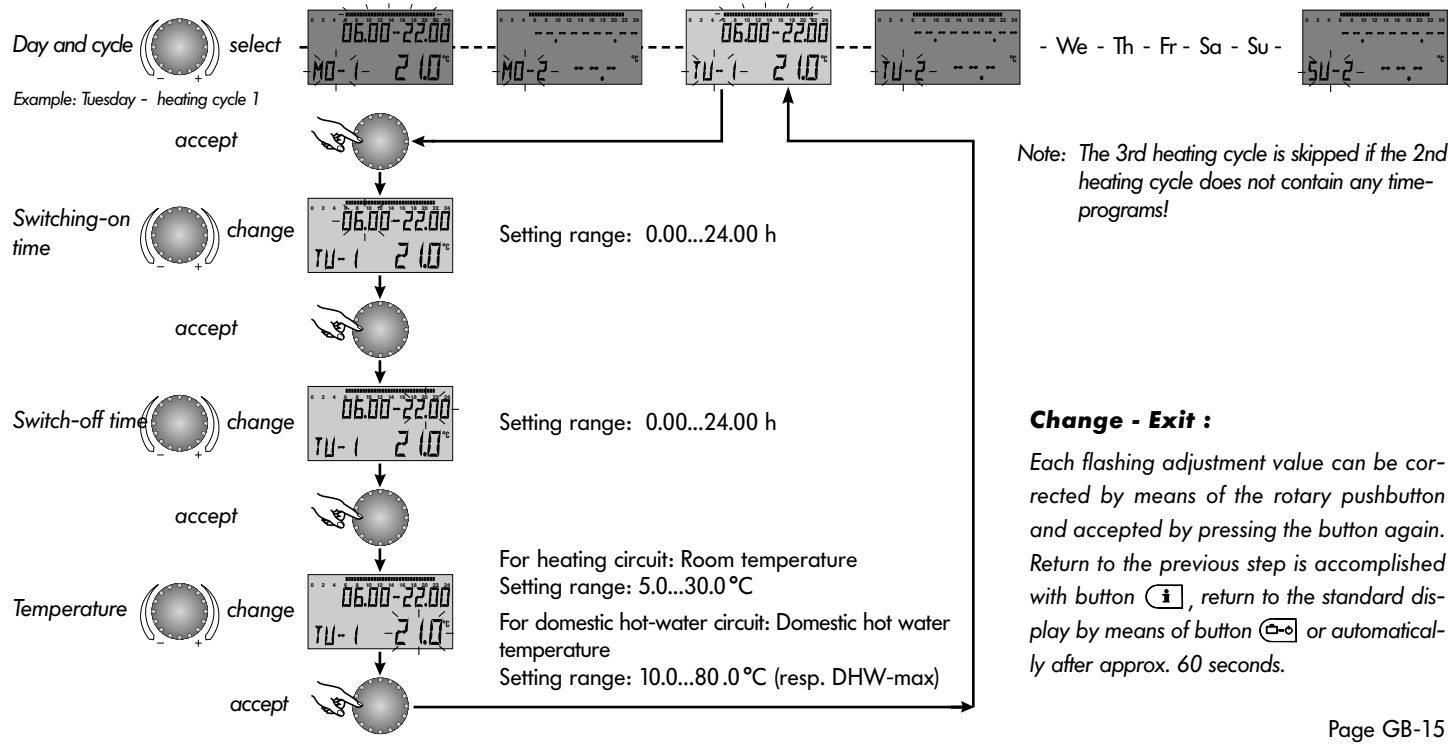
Return to the previous step by means of button (i) return to standard display by using button ⊶ or automatically after approx. 60 seconds.

Programming of operating times



With this mode of operation individual timeprograms can be generated for heating and hot-water mode. For this purpose the factory preset standard program (P1) is called up after selecting the respective circuit and can be individually overwritten.

For the programming of timeprograms a maximum of three heating cycles with a switch-on and switch-off time is available for each weekday. Apart from that a desired room temperature or domestic hot water temperature can be set for each heating or domestic hot water cycle.

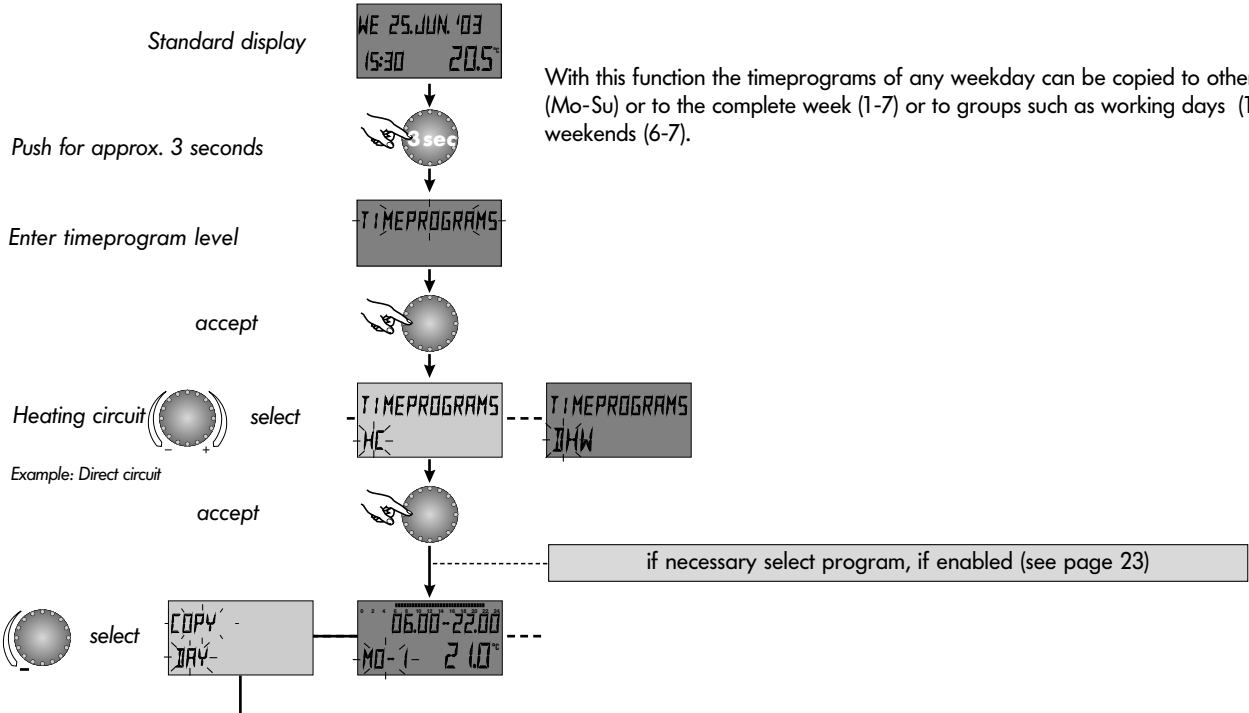


Note: The 3rd heating cycle is skipped if the 2nd heating cycle does not contain any time-programs!

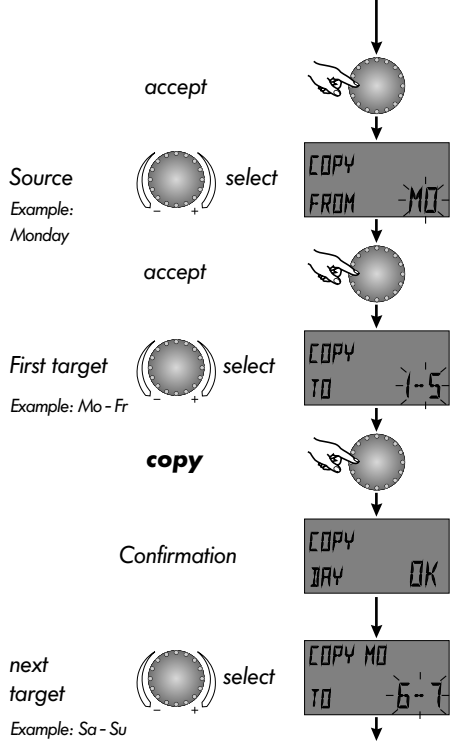
Change - Exit :

Each flashing adjustment value can be corrected by means of the rotary pushbutton and accepted by pressing the button again. Return to the previous step is accomplished with button (i), return to the standard display by means of button (⊶) or automatically after approx. 60 seconds.

Copying of timeprograms (formation of blocks)



With this function the timeprograms of any weekday can be copied to other days (Mo-Su) or to the complete week (1-7) or to groups such as working days (1-5) or weekends (6-7).



Setting range: Monday (MO)...Sunday (SU)

Setting range:
Weekdays (MO...SU), whole week (1-7),
Working days (1-5), only weekend (6-7)

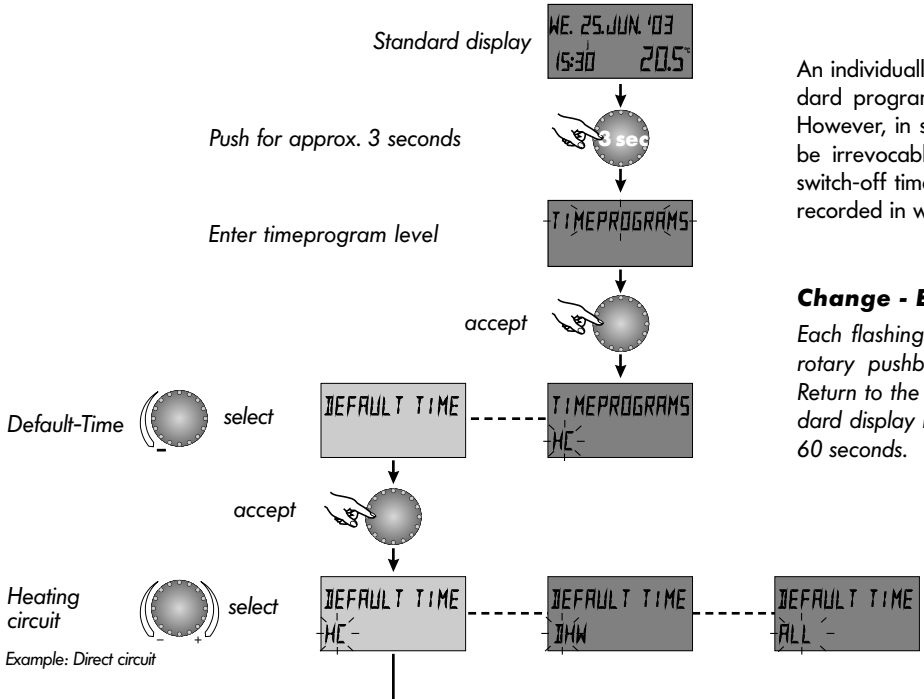
After acknowledging the target day will be overwritten with the selected timeprogram. The process is completed as soon as the weekday display flashes again.

If further copies are required continue copying in the same way (see first target).

Change - Exit :

Each flashing adjustment value can be corrected by means of the rotary pushbutton and accepted by pressing the button again. Return to the previous step by means of button (i), return to standard display by means of button or automatically after approx. 60 seconds.

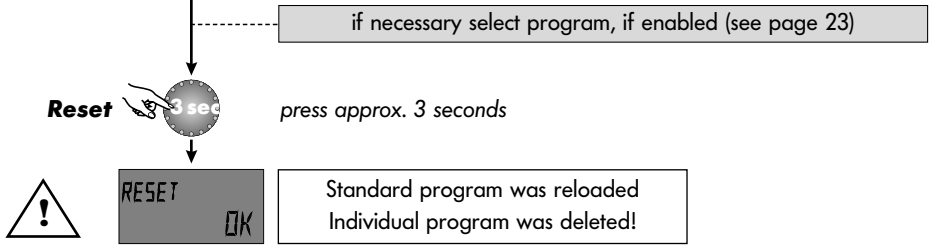
Reloading of standard program - deleting of individual timeprogram



An individually generated timeprogram can be replaced by its standard program as shown in the opposite programming schematic. However, in such cases the individually generated timeprogram will be irrevocably deleted. For this purpose individual switch-on and switch-off times as well as specified temperatures should always be recorded in writing (see page 21).

Change - Exit :

Each flashing adjustment value can be corrected by means of the rotary pushbutton and accepted by pressing the button again. Return to the previous step by means of button (i), return to standard display by means of button (⊶) or automatically after approx. 60 seconds.



Standard timeprograms

Timeprogram P1

Circuit	Day	Time programs					
		from	Temp	from	Temp	from	Temp
heating (HC)	Mo-Su	07.00-09.00	20	09.00-16.00	19.5	16.00-22.30	21
Domestic hot water (DHW)	Mo-Su	00.00-24.00	63	-	-	-	-

Timeprogram P2 (see page 22)

Circuit	Day	Time programs					
		from	Temp	from	Temp	from	Temp
heating (HC)	Mo-Th	07.00-08.00	20	08.00-16.00	19.5	16.00-22.30	21
	Fr	07.00-08.00	20	13.00-22.30	21	-	-
	Sa-Su	07.00-23.00	21	-	-	-	-
Domestic hot water (DHW)	Mo-Su	05.00-08.00	63	15.30-22.00	63	-	-
	Fr	05.00-08.00	63	12.30-22.00	63	-	-
	Sa-Su	06.00-23.00	63	-	-	-	-

Timeprogram P3 (see page 22)

Circuit	Day	Time programs	
		from	Temp
heating (HC)	Mo-Fr	07.00-18.00	21
	Sa-Su	reduced	21
Domestic hot water (DHW)	Mo-Fr	06.00-18.00	21
	Sa-Su	reduced	

Table for individual timeprograms

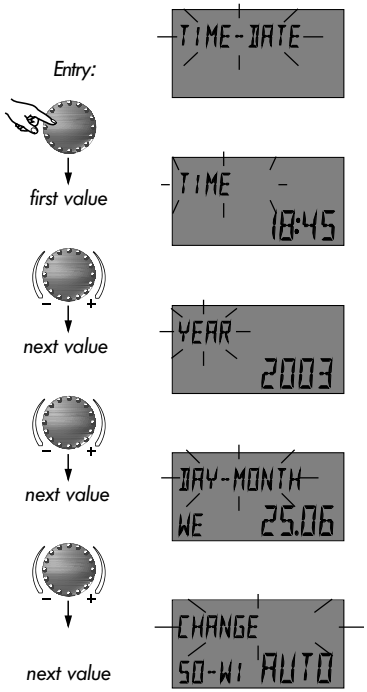
Unmixed heating circuit

Day	Timeprogram P1						Timeprogram P2						Timeprogram P3					
	Cycle 1		Cycle 2		Cycle 3		Cycle 1		Cycle 2		Cycle 3		Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to
Mo																		
Tu																		
We																		
Th																		
Fr																		
Sa																		
Su																		

Hot water circuit

Day	Cycle 1		Cycle 2		Cycle 3		Cycle 1		Cycle 2		Cycle 3		Cycle 1		Cycle 2		Cycle 3	
	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to	from	to
Mo																		
Tu																		
We																		
Th																		
Fr																		
Sa																		
Su																		

TIME-DATE



Time
Setting range:
0.00 to 24.00 h

YEAR
Setting range:
2001 to 2099

Day/month
Setting range: 01.01. to 31.12.
Weekday: Monday to Sunday automatic

Automatic change of daylight saving time
(can only be accessed with code 1234)
Setting range:
AUTO: the last Sunday in March and October
MANU: no time change

Entry: *see level synoptic page 12-13*

Exit: *Button* ⊂⊃ *or automatically after approx. 60 seconds.*

Change: *Accept selected flashing value by pressing the rotary pushbutton. Then correct and accept by pressing the rotary pushbutton again.*

The time and calendar data are factory preset and normally do not need to be corrected.

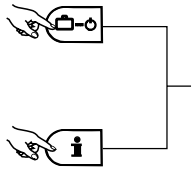
The internal pre-programmed calendar provides for an automatic time change at the annually occurring change of daylight saving time.

If required, the automatic change of daylight saving time can be disabled.

Leap years have been integrated into the calendar.

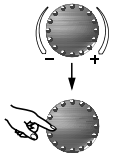
EXTENDED INSTALLER LEVEL

Code input



Press both buttons **together** for approx. three seconds

Adjusting the 1st code number



actuate, adjust next code numbers and confirm

Release (with correct code)

or

Access denied (with wrong code)

The extended installer level contains the levels SYSTEM, *DHW* and *UNMIXED CIRC*. After the input of the corresponding code the parameters accessible for the heating specialist will be released and are then accessible for editing, in dependence on the plant version.

Code input

In order to enter the code for extended installer level the buttons ⏍ and (i) must be pressed simultaneously for about three seconds, until the display shows the request for the code.

Each flashing digit is set by means of the rotary pushbutton in accordance with the code and confirmed by pressing the button. All other digits are entered in the same way.

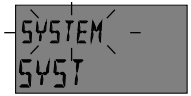
After correct input of code the acknowledgement CONTROL MODE will appear upon acceptance of the last digit, in case of a wrong entry the message CODE ERROR will appear.

The factory set code is :

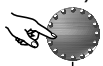
1 2 3 4

Important: Enabled parameters will be blocked again if no further action takes place over a period of ten minutes. After this the code needs to be entered once again, if required.

SYSTEM



Entry:



next parameter

next parameter

Note: Only accessible with code 1234.

Contents: General limitation parameters and functions, which refer to the respective heating system.

Parameter 1 - language selection

Setting range: NL = DUTCH GB = ENGLISH
F = FRENCH I = ITALIAN

Factory setting: NL

All information appearing on the display is available in the languages Dutch, English, French and Italian. The selected language can be selected and activated according to the above assignment.

Parameter 2 - Timeprogram

Setting range: P1, P1-P3
Factory setting: P1

This parameter specifies the number of the cleared timeprograms. With setting P1 only one timeprogram is available, with setvalue P1-P3 all three programs are cleared.

Entry: *see level synoptic page 12-13*

Exit: *Button ⏎ or automatically after approx. 60 seconds.*

Change: *Accept selected flashing parameter by pressing the rotary pushbutton. Then change the parameter value and accept by pressing the rotary push button again.*

Application: *Use of the instrument in the corresponding language area*

Application: *Frequently changing timeprograms, e.g. shift work with different working times*

Parameter 3 - Separate operation

Setting range: 1 = common selection 2 = separate selection
Factory setting: 1

next parameter

Common selection:

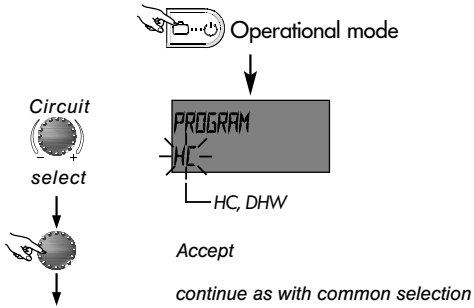
The operating mode (*HOLIDAY, PARTY, ABSENT, AUTOMATIC, etc.*) selected with button applies for both the heating and the domestic hot water.

Application: *Objects with identical use of characteristics (detached houses etc.)*

Separated selection:

This operating mode can be freely selected for both the heating circuit as well as the domestic hot water circuit. For this purpose the corresponding circuit must be chosen acc. to the following schematic, before starting the adjustment.

Application: *Objects with individually different use of characteristics (condominiums, granny annexes)*



next parameter

Parameter 4 - Summer ECO-temperature*

Setting range: OFF, 10.0 to 30.0 °C
Factory setting: 20.0 °C
* only when the outside sensor is connected.

This parameter refers to the heating delimiting value and takes the heating automatically out of service as soon as the outside temperature exceeds the set heating delimiting value. During summer ECO-temperature the heating circuit pump is activated each day for approx. 20 seconds to protect it against corrosion (anti-blocking protection).

With setting OFF summer switching-off is not in effect.

Hot water preparation is not affected by summer switching-off.

Note: The active summer ECO-temperature appears on the standard display with a sunshade symbol.

Summer ECO-temperature

Application: *All objects which do not require heating operation during summer.*

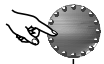
next parameter

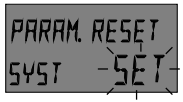
Parameter 11 - Return to standard display

Setting range: OFF, 0.5 to 5.0 minutes
Factory setting: 2.0 min

The standard display will appear automatically after the set time or if no key is pressed.

Note: The time set here applies for the buttons ⊙⊸ operating mode selector button and to the level selection (see programming level) and the code input.





Parameter reset

With this function all changes made in the programming levels can be reset to the factory setting.

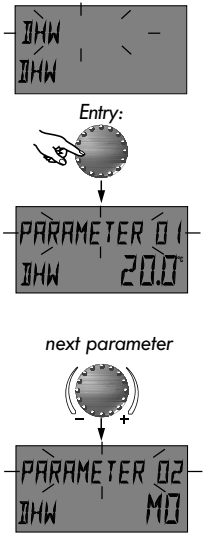
Exceptions: Time-date, operating times

Reset: With the readiness for reset (SET) flashing press the rotary pushbutton for approx. 5 seconds, until the unit restarts.

Note: re-setting will automatically reset the control to dutch (NL)

Important: A reset should only be made if all individually entered values are to be replaced by the factory settings!

DHW



Note: Only accessible with code 1234.

This level includes the necessary parameters to adjust the domestic hot water night temperature and the legionella protection. The settings for DHW are only visible when an external cylinder with either a cylinder sensor or a cylinder thermostat is connected. With combination boilers these settings are not visible.

Night temperature domestic hot water

Setting range: 10.0 °C up to the desired DHW-temperature
Factory setting: 20 °C

This parameter determines the magnitude of the required domestic hot water temperature outside the hot water standby times as well as in operational mode *ABSENT* for the duration of the absence.

Legionella protection - day

Setting range: OFF, MO to SU, ALL (days)
Factory setting: MO

The legionella protection is a prevention against legionella germination in the domestic hot water tank and is activated on the selected weekday (Mo-Su) or every day at 2.00 h (= factory-setting). For this the domestic hot water tank is loaded up to a temperature of 65 °C. With the setting *OFF* this function is not in effect.

Entry: *see level synoptic page 12-13*

Exit: *Button ⊂⊃ or automatically after approx. 60 seconds.*

Change: *Accept selected flashing parameter by pressing the rotary pushbutton. Then change the parameter value and accept by pressing the rotary push button again.*

Application: *Minimum temperature in the DHW-tank to prevent it from cooling down.*

Note: *This parameter is skipped if a hot-water thermostat is used instead of an electronic hot-water sensor.*

Note: *Other legionella protection times can be regulated exclusively by the heating specialist.*

Attention: *Danger of scalding due to hot water! Use thermostatic mixing valve on DHW tank outlet.*

Parameter 16 - Hot water temperature

Setting range: 10.0 °C to DHW maximum limit
Factory setting: 63 °C

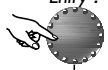
This parameter determines the desired domestic hot water temperature when operated in operating modes *PARTY*, *HEATING* and SUMMER and serves as a base value for the domestic hot water temperatures in the automatic programs.

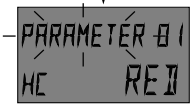
Application:

Determination of the domestic hot water standard temperature - simple adjustment for all domestic hot water specifications in case of other situations of use (e.g. change of tenent or owner)

DIRECT HEATING CIRCUIT

Entry :





next parameter

Note: Only accessible with code 1234.

This level includes the parameters required for the unmixed heating circuit for the adjustment of the temporary heating periods (reduced operational mode) and for the adaptation to the respective heating system.

Parameter 1 - Nightly set back*

Setting range: ECO, RED
Factory setting: RED
* only when the outside sensor is connected
During the reduced operation the following functions can be selected:

ECO: With outside temperatures above the adjusted plant frost protection the heating circuit is completely shutdown.
At temperatures below frost protection the heating circuit is controlled according to the desired night temperature (see page 6).

RED: The heating pump remains in function during reduced operation. The heating circuit is controlled according to the reduced heating characteristic curve, the temperature does not drop below the set minimum temperature value.

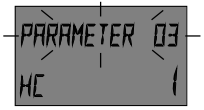
Entry: *see level synoptic page 12-13*

Exit: *Button ⏎ or automatically after approx. 60 seconds.*

Change: *Accept selected flashing parameter by pressing the rotary pushbutton. Then change the parameter value and accept by pressing the rotary push button again.*

Application: *Building with high insulation values*

Application: *Building with low insulation values*



next parameter

Parameter 3 - Room sensor display

Setting range: OFF*, 1, 3*
Factory setting: 1

This parameter activates the room sensor and enables all parameters which are related with the room temperature.

The following operating modes can be selected:

OFF* The effect of the room sensor is completely disabled. The parameters related with the room temperature have no function. In the standard display, the boiler temperature to the central heating system is shown.

1 The room sensor is activated, the unit displays the actual room temperature.

3* The effect of the room sensor is completely disabled, the standard display shows the room temperature.

With the room sensor activated the heating circuit is still controlled depending on weather conditions, whereby the magnitude of the influence applied by the room is determined by the following parameter 04 *(ROOM SENSOR FUNCTION)*.

With the room sensor deactivated the room temperature no longer appears in the display.

Note: The room sensor must not be activated:

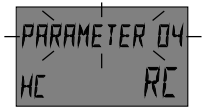
- outside the area of unheated rooms, such as cellars etc.
- in apartment blocks with different types of occupation and different room temperatures.

Important: If the actual room temperature drops more than 1 K below the actual room setvalue, an existing summer shut-down will be disabled.

Applications:

All plants requiring monitoring and room temperature control.

** only when the outside sensor is connected.*



next parameter

Parameter 4 - Room sensor function

Setting range: OFF, 1…500 %, RC
Factory setting: RC

This parameter determines to what extent a deviation of the room temperature from the specified setvalue has an influence on the control of the heat generator temperature.

If there is no difference between desired *(SET)* and actual *(ACT)* room temperature, the flow temperature of the heating circuit is controlled in accordance with the adjusted heating curve.

Should the room temperature deviate from the adjusted setvalue, the heating characteristic is adjusted on the room temperature axis in such a way, that the control deviation is compensated. The size of this displacement thereby depends on the setting of the room effect.

The following relation applies:

$$\text{Room set}_{corr} = \text{Room set}_{nom} - \left(\frac{\text{Deviation x Room factor}}{100} \right)$$

with

Room set_{corr} = corrected new room setvalue

Room set_{nom} = adjusted room setvalue

Example:

adjusted room setvalue = 21 °C
actual room temperature = 20 °C
The deviation resulting from this is therefore −1 K.
The following applies with room factor 100 %:

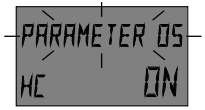
$$\text{Room set}_{corr} = 21\ °C - \left(\frac{-1K \times 100}{100} \right) = 22\ °C$$

The heat generator temperature is controlled in accordance with a heating characteristic, which complies with a specified room temperature of 22 °C.

Setting OFF: completely dependent on the weather conditions without correcting the room set value

Setting RC: completely dependent on the room temperature without any influence of the outside temperature

Important note: High settings reduce the stability of the control circuit and may lead to fluctuations in room temperature. The setting should be adapted to the conditions of the room.



next parameter

Parameter 5 - Heating curve adaptation

Setting range: ON, OFF
Factory setting: ON

This parameter triggers an automatic adaptation of the heating curve slope to the characteristics of the building under permanent inclusion of outside, flow and room temperatures.

In order to determine the optimal heating curve longer heating phases are required, so that a compensation between input and output heat is assured. The adaptation triggers a directed adjustment of the heating curve in dependence on the control offset.

The value determined by adaptation is not saved. The number of corrective steps rises as the deviation increases, with smaller deviations the correction will also be minor. When changing the heating curve slope at a later date it will be adapted anew.

Note: It is recommended to disable this parameter after the adaptation is completed and to adjust the slope value determined by adaptation manually in Parameter 27 (Heating curve adjustment).

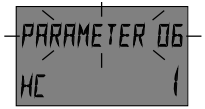
An adaptation is made under the following conditions:

- with active room sensor (Par. 3 - room intrusion = 1)
- with heating curve adaptation switched on
- in all automatic programs during heating operation
- with permanent heating operation
- with averaged outside temperatures below 16 °C
- with room temperatures deviating more than 1 K from the set-value

no adaptation takes place

- when the heating circuit is switched off
- with heating curve adaptation switched off
- during the optimization phases
- in all automatic programs during reduced operation
- during permanently reduced operation
- in case of defective or disconnected outdoor sensor
- with deactivated room sensor (room intrusion OFF)
- after the maximum temperature of the heat generator is reached

Note: The heating curve adaptation is not in effect in case of pure room control (i.e. parameter 4 - room factor = RC)



next parameter

Parameter 6 - Inrush optimization

Setting range: OFF, 1…8 h
Factory setting: 1

This parameter calculates the latest heat-up time within a predetermined adjustment value and under consideration of the outside temperature curve, in order to assure the desired room temperature at the start of the specified occupation.

The inrush times stored in the timeprograms therefore no longer refer to the start of heating, but to the start of occupation, i.e. the point in time at which the desired room temperature is reached.

Application *(for weather dependent systems only):*

Enhanced heating comfort for objects with individual occupation characteristic, such as detached houses or condominiums with their own control circuit.

next parameter

Parameter 25 - Day temperature (standard value)

Setting range: 5.0…30.0 °C
Factory setting: 21.0 °C

This parameter determines the desired daytime room temperature when operated in operational modes *PARTY* and *HEATING* and serves as a base value for the temperatures in the automatic programs.

Important!

The temperature settings during the heating cycles implemented in the timeprograms will change by the same magnitude when changing the Parameter!

Application:

Determination of the standard room temperature - simple adjustment for all daytime room setvalues in case of other occupation situations (e.g. changing of tenents or owner)

next parameter

next parameter

Parameter 26 - Night temperatur (standard value)

Setting range: 5.0…30.0 °C
Factory setting: 16.0 °C

This parameter determines the desired room temperature when operated in operational modes *ABSENT* and *RED. HEATING as well as* between the heating periods in the automatic time programs.

Application:

Determination of the set back standard room temperature - simple adjustment for all set back room setvalues in case of other occupation situations (e.g. change of tenents or owner)

Parameter 27 - Heating curve adjustment

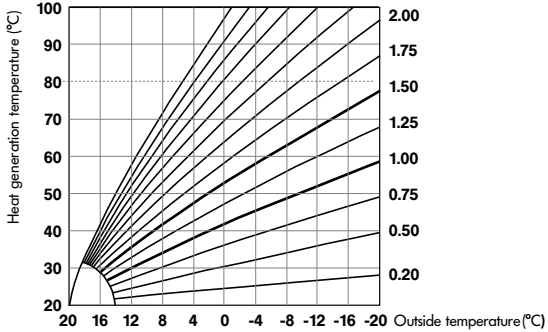
Setting range: 0,2…3.5
Factory setting: 1,75

This parameter determines the slope of the heating curve.

The adjustment of the heating curve depends on the type of installation and determines which flow temperature will be achieved at the respective outside temperature.

The slope determines by how many degrees the flow temperature changes, if the outdoor temperature rises or drops by one degree.

Diagram of heating curves



Notes: Possible corrections should always be made in small steps of 0.1!

With pure room control (parameter 4 - room factor = RC) this parameter is ineffective!

Typical settings:

Radiator	1,25...1,50
Low temperature heating:	0,80...1,20
Underfloor heating	0,50...0,70

Application:

Adaptation of the heating power to the object to be heated in accordance with the corresponding climatic zone and the construction specific conditions.

Error message

Example for sensor error message
(Short-circuit or interruption)
Error code 10…20 with index 0 or 1

Examples for burner error messages (control status)
Error code 30…40 with index 2…5

Example for data bus error messages
(data bus address error)
Error code 70 with index 0 or 1

The control unit contains comprehensive error identification logics, which shows both control errors as well as system errors with priority by means of an associated error code.

Attention: Error messages **only** appear in the standard display in succession with the respective error message.

In case of error messages the heating specialist has to be informed!

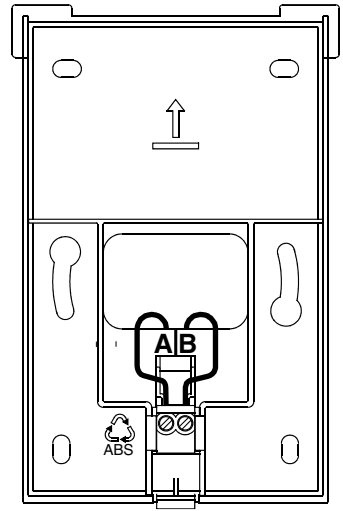
Notes

Technical specifications (thermostat)

Supply voltage:	Via data bus (Protective extra low voltage acc. to EN 60730)
Power consumption:	300 mW
Bus interface:	RS 485
Ambient temperature:	0..0,50 °C
Storage temperature:	-25..0.60 °C
Protection type acc. to EN 60529:	IP 20
Protection type acc. to EN 60730:	III
Approval according to:	VDE 60 730
Casing dimensions (WxHxD):	90 x 138 x 28 mm (WxHxT)
Casing material:	ABS, antistatic
Electrical connections:	2-wire mode with screw-plug connection
Recommended connecting cable:	screened, 0.6 mm Ø, 2-strands
Maximum permitted cable length:	50 m
Data storage and timer reserve at time of delivery:	min. 5 years
Accuracy of internal clock:	± 2 s/day
Display:	alphanumeric plain text with symbols and light after pressing a key
Weight:	approx. 150 g

Electrical connection (thermostat)

Socket (unit removed)



Important: The two wires of the data bus (A, B) may not be mixed up by mistake !

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Met deze vernieuwde uitgave vervallen alle voorgaande installatievoorschriften.

This renewed publication cancels all previous installation instructions.

Wijzigingen voorbehouden • We reserve the right to make changes

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